# # 12/2

#### SEQUENCE LISTING

## (1) GENERAL INFORMATION:

- (i) APPLICANT: RICCARDI, Carlo
- (ii) TITLE OF INVENTION: INTRACELLULAR MODULATORS OF APOPTIC CELL DEATH PATHWAYS
  - (iii) NUMBER OF SEQUENCES: 15
  - (iv) CORRESPONDENCE ADDRESS:
    - (A) ADDRESSEE: BROWDY AND NEIMARK, P.L.L.C.
    - (B) STREET: 624 Ninth Street, N.W., Suite 300
    - (C) CITY: Washington
    - (D) STATE: D.C.
    - (E) COUNTRY: USA
    - (F) ZIP: 20001
  - (v) COMPUTER READABLE FORM:
    - (A) MEDIUM TYPE: Floppy disk
    - (B) COMPUTER: IBM PC compatible
    - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
    - (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
  - (vi) CURRENT APPLICATION DATA:
    - (A) APPLICATION NUMBER: 09/403,861
    - (B) FILING DATE: 11-FEB-2000
  - (vii) PRIOR APPLICATION DATA:
    - (A) APPLICATION NUMBER: PCT/EP98/02490
    - (B) FILING DATE: 27-APR-1998
  - vii) PRIOR APPLICATION DATA:
    - (A) APPLICATION NUMBER: EP 97107033.9
    - (B) FILING DATE: 28-APR-1997
  - (viii) ATTORNEY/AGENT INFORMATION:
    - (A) NAME: YUN, Allen C.
    - (B) REGISTRATION NUMBER: 37,971
    - (C) REFERENCE/DOCKET NUMBER: RICCARDI=1
  - (ix) TELECOMMUNICATION INFORMATION:
    - (A) TELEPHONE: 202-628-5197
    - (B) TELEFAX: 202-737-3528
- (2) INFORMATION FOR SEQ ID NO: 1:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 1972 base pairs
    - (B) TYPE: nucleic acid
    - (C) STRANDEDNESS: single
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: cDNA
  - (iii) HYPOTHETICAL: NO
  - (iv) ANTI-SENSE: NO
  - (ix) FEATURE:
    - (A) NAME/KEY: CDS
    - (B) LOCATION: 206..616





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(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:	
CTGGCTGCTG TGGAGTTTGT GACATACTAG GTGACACCCT TGGAGTCACT TCTCTTCAAC	60
TCCAGCTTAG AAGTGCCTGC CTGGCTCAGG GTCTGCACTG CAGCCTACTC CTTGCTTCAG	120
GGCCTGACTG CAACGCCAAA GCCTATCCTA TAGCGGCAGC GCCAGCAGCC ACTCAAACCA	180
GCCACAGCTC CCCGGCAACC GAACC ATG AAC ACC GAA ATG TAT CAG ACC CCC Met Asn Thr Glu Met Tyr Gln Thr Pro  1 5	232
ATG GAG GTG GCG GTC TAT CAG CTG CAC AAT TTC TCC ACC TCC TTC TTT Met Glu Val Ala Val Tyr Gln Leu His Asn Phe Ser Thr Ser Phe Phe 10 15 20 25	280
TCT TCT CTG CTT GGA GGG GAT GTG GTT TCC GTT AAA CTG GAT AAC AGT Ser Ser Leu Leu Gly Gly Asp Val Val Ser Val Lys Leu Asp Asn Ser 30	328
 GCC TCC GGA GCC ACT CTC GCC CTA GAC AAC AAG ATT GAG CAG GCC Ala Ser Cl. Ala Ser Val Val Ala Leu Asp Asn Lys Ile Glu Gln Ala 50 55	376
ATG GAC CTC GTG AAG AAC CAC CTG ATG TAC GCT GTG AGA GAG GAG GTG Met Asp Leu Val Lys Asn His Leu Met Tyr Ala Val Arg Glu Glu Val 60 65 70	424
GAG GTC CTA AAG GAG CAG ATT CGT GAG CTG CTT GAG AAG AAC TCC CAG Glu Val Leu Lys Glu Gln Ile Arg Glu Leu Leu Glu Lys Asn Ser Gln 75 80 85	472
CTG GAG CGC GAG AAC ACC CTC CTG AAG ACG CTG GCA AGC CCC GAG CAA Leu Glu Arg Glu Asn Thr Leu Leu Lys Thr Leu Ala Ser Pro Glu Gln 90 95 100 105	520
CTG GAA AAG TTC CAG TCC CGG CTG AGC CCT GAA GAG CCA GCA CCT GAA Leu Glu Lys Phe Gln Ser Arg Leu Ser Pro Glu Glu Pro Ala Pro Glu 110 115 120	568
GCC CCA GAA ACC CCG GAA ACC CCG GAA GCC CCT GGT GGT TCT GCG GTG Ala Pro Glu Thr Pro Glu Thr Pro Glu Ala Pro Gly Gly Ser Ala Val 125 130 135	616
TAAGTGGCTC TGTCCTTAGG GTGGGCAGAG CCACATCTTG TTCTACCTAG TTCTTTCCAG	676
TTTGTTTTTG GCTCCCCAAG GGTCATCTCA TGTGGAGAAC TTTACACCTA ACATAGCTGG	736
TGCCAAGAGA TGTCCCAAGG ACATGCCCAT CTGGGTCCAC TCCAGTGACA GACCCCTGAC	796
AAAGAGCAGG TCTCTGGAGA CTAAGTTGCA TGGGGCCTAG TAACACCAAG CCAGTGAGCC	856
TGTCGTGTCA CCGGGCCCTG GGGCTCCCA GGGCTGGGCA ACTTAGTTAC AGCTGACCAA	916
GGAGAAAGTA GTTTTGAGAT GTGATGCCAG TGTGCTCCAG AAAGTGTAAG GGGTCTGTTT	976
TTCATTTCCA TGGACATCTT CCACAGCTTC ACCTGACAAT GACTGTTCCT ATGAAGAAGC	1036
CACTTGTGTT CTAAGCAGAA GCAACCTCTC TCTTCTTCCT CTGTCTTTTC CAGGCAGGGG	1096
CAGAGATGGG AGAGATTGAG CCAAATGAGC CTTCTGTTGG TTAATACTGT ATAATGCATG	1156
GCTTTGTGCA CAGCCCAGTG TGGGGTTACA GCTTTGGGAT GACTGCTTAT AAAGTTCTGT	1216

TTGGTTAGTA	TTGGCATCGT	TTTTCTATAT	AGCCATAATG	CGTATATATA	CCCATAGGGC	1276
TAGATCTATA	TCTTAGGGTA	GTGATGTATA	CATATACACA	TACACCTACA	TGTTGAAGGG	1336
CCTAACCAGC	TTTGGGAGTA	CTGACTGGTC	TCTTATCTCT	TAAAGCTAAG	TTTTTGACTG	1396
TGCTAATTTA	CCAAATTGAT	CCAGTTTGTC	CTTTAGATTA	AATAAGACTC	GATATGAGGG	1456
AGGGAGGGA	AGACCAGCCT	CACAATGCGG	CCACAGATGC	CTTGCTGCTG	CAGTCCTCCC	1516
TGATCTGTCC	ACTGAAGACA	TGAAGTCCTC	TTTTGAATGC	CAAACCCACC	ATTCATTGGT	1576
GCTGACTACA	TAGAATGGGG	TTGAGAGAAG	ATCAGTTTGG	ACTTCACATT	TTTGTTTTAA	1636
GTTTTAGGTT	GTTTTTTTT	GGTTTTGTTT	GTTTGTTTGT	TTGTTTGTTT	TTGTTTTTTG	1696
TTTTTCTTTT	TTAAGTTCTT	GTGGGGAAAC	TTTGGGGTTA	ATCAAAGGAT	GTAGTCCTGT	1756
GGTAGACCAG	AGGAGTAACT	AGTTTTGATC	CTTTGGGGTG	TGGAAAATGT	ACCCAGGAAG	1816
CTTGTGTAAG	GAGGTTCTGT	GACAGTGAAC	ACTTTCCACT	TTCTGACACC	TCATCCTGCT	1876
GTACGACTCC	AGGATTTGGA	TTTGGATTTT	TCAAATGTAG	CTTGAAATTT	CAATAAACTT	1936
TGCTCCTTTT	ТСТАААААТА	АААААААА	AAAAA			1972

## (2) INFORMATION FOR SEQ ID NO: 2:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 137 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: protein
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

Met Asn Thr Glu Met Tyr Gln Thr Pro Met Glu Val Ala Val Tyr Gln 1 5 10 15

Leu His Asn Phe Ser Thr Ser Phe Phe Ser Ser Leu Leu Gly Gly Asp 20 25 30

Val Val Ser Val Lys Leu Asp Asn Ser Ala Ser Gly Ala Ser Val Val

Ala Leu Asp Asn Lys Ile Glu Gln Ala Met Asp Leu Val Lys Asn His 50 55 60

Leu Met Tyr Ala Val Arg Glu Glu Val Glu Val Leu Lys Glu Gln Ile 65 70 75 80

Arg Glu Leu Leu Glu Lys Asn Ser Gln Leu Glu Arg Glu Asn Thr Leu 85 90 95

Leu Lys Thr Leu Ala Ser Pro Glu Gln Leu Glu Lys Phe Gln Ser Arg
100 105 110

Leu Ser Pro Glu Glu Pro Ala Pro Glu Ala Pro Glu Thr Pro Glu Thr 115 120 125

Pro Glu Ala Pro Gly Gly Ser Ala Val 130 135

(2) INFO	RMATION FOR SEQ ID NO: 3:	
(i)	SEQUENCE CHARACTERISTICS:  (A) LENGTH: 20 base pairs  (B) TYPE: nucleic acid  (C) STRANDEDNESS: single  (D) TOPOLOGY: linear	
(ii)	MOLECULE TYPE: cDNA	
(iii)	HYPOTHETICAL: NO	
(iv)	ANTI-SENSE: NO	
(ix)	FEATURE:  (A) NAME/KEY: misc_feature  (B) LOCATION:120  (D) OTHER INFORMATION:/note= "PCR forward primer"	
(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 3:	
CCATCTGG	GT CCACTCCAGT	20
(2) INFO	RMATION FOR SEQ ID NO: 4:	
(i)	SEQUENCE CHARACTERISTICS:  (A) LENGTH: 20 base pairs  (B) TYPE: nucleic acid  (C) STRANDEDNESS: single  (D) TOPOLOGY: linear	
(ii)	MOLECULE TYPE: cDNA	
(iii)	HYPOTHETICAL: NO	
(ix)	<pre>FEATURE:   (A) NAME/KEY: misc_feature   (B) LOCATION:120   (D) OTHER INFORMATION:/note= "PCR reverse primer"</pre>	
(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 4:	
AGGACAGT	GG GAGTGGCACC	20
(2) INFO	RMATION FOR SEQ ID NO: 5:	
(i)	SEQUENCE CHARACTERISTICS:  (A) LENGTH: 1946 base pairs  (B) TYPE: nucleic acid  (C) STRANDEDNESS: single  (D) TOPOLOGY: linear	
(ii)	MOLECULE TYPE: cDNA	
(iii)	HYPOTHETICAL: NO	
(iv)	ANTI-SENSE: NO	
(ix)	FEATURE: (A) NAME/KEY: CDS (B) LOCATION:241642	
(xi)	SEQUENCE DESCRIPTION: SEQ ID NO: 5:	

AATTCGGGGG CCGTGGAGTT TGTGACATAC GAGGTGACAC CCCTCGAGTC ACTTCCCTTC 60

AACTCCAGCT GGAGCGCCTG CTTGGCTTTG GGTTCGTTCT GCAGCCTTCG CCCCGCTCCT	120
AGCCTCAGGG CCGGACTCCA GCGCAGAGCC CAGCCCAGCG CAGCCTGCCA GCAGCCACCC	180
AGCCGCCCAG CCGCCCAGCC CCGCACGAAA CCCGGCCAGA GCTTCCTAGC AGCCCGAGCC	240
ATG AAC ACC GAA ATG TAT CAG ACC CCC ATG GAG GTG GCG GTC TAC CAG Met Asn Thr Glu Met Tyr Gln Thr Pro Met Glu Val Ala Val Tyr Gln 5 10 15	288
CTG CAC AAT TTC TCC ATC TCC TTC TCT TCT CTG CTT GGA GGG GAT Leu His Asn Phe Ser Ile Ser Phe Phe Ser Ser Leu Leu Gly Gly Asp 20 25 30	336
GTG GTT TCC GTT AAG CTG GAC AAC AGT GCC TCC GGA GCC AGC GTG GTG Val Val Ser Val Lys Leu Asp Asn Ser Ala Ser Gly Ala Ser Val Val 35 40 45	384
GCC ATA GAC AAG ATC GAA CAG GCC ATG GAT CTG GTG AAG AAT CAT Ala Ile Asp Asn Lys Ile Glu Gln Ala Met Asp Leu Val Lys Asn His 50 55 60	432
CTG ATG TAT GCT GTG AGA GAG GAG GTG GAG ATC CTG AAG GAG CAG ATC Leu Met Tyr Ala Val Arg Glu Glu Val Glu Ile Leu Lys Glu Gln Ile 65 70 75 80	480
CGA GAG CTG GTG GAG AAG AAC TCC CAG CTA GAG CGT GAG AAC ACC CTG Arg Glu Leu Val Glu Lys Asn Ser Gln Leu Glu Arg Glu Asn Thr Leu 85 90 95	528
TTG AAG ACC CTG GCA AGC CCA GAG CAG CTG GAG AAG TTC CAG TCC TGT Leu Lys Thr Leu Ala Ser Pro Glu Gln Leu Glu Lys Phe Gln Ser Cys 100 105 110	576
CTG AGC CCT GAA GAG CCA GCT CCC GAA TCC CCA CAA GTG CCC GAG GCC Leu Ser Pro Glu Glu Pro Ala Pro Glu Ser Pro Gln Val Pro Glu Ala 115 120 125	624
CCT GGT GGT TCT GCG GTG TAAGTGGCTC TGTCCTCAGG GTGGGCAGAG Pro Gly Gly Ser Ala Val 130	672
CCACTAAACT TGTTTTACCT AGTTCTTTCC AGTTTGTTTT TGGCTCCCCA AGCATCATCT	732
CACGAGGAGA ACTTTACACC TAGCACAGCT GGTGCCAAGA GATGTCCTAA GGACATGGCC	792
ACCTGGGTCC ACTCCAGCGA CAGACCCCTG ACAAGAGCAG GTCTCTGGAG GCTGAGTTGC	852
ATGGGGCCTA GTAACACCAA GCCAGTGAGC CTCTAATGCT ACTGCGCCCT GGGGGCTCCC	912
AGGGCCTGGG CAACTTAGCT GCAACTGGCA AAGGAGAAGG GTAGTTTGAG GTGTGACACC	972
AGTTTGCTCC AGAAAGTTTA AGGGGTCTGT TTCTCATCTC CATGGACATC TTCAACAGCT	1032
TCACCTGACA ACGACTGTTC CTATGAAGAA GCCACTTGTG TTTTAAGCAG AGGCAACCTC	1092
TCTCTTCTCC TCTGTTTCGT GAAGGCAGGG GACACAGATG GGAGAGATTG AGCCAAGTCA	1152
GCCTTCTGTT GGTTAATATG GTATAATGCA TGGCTTTGTG CACAGCCCAG TGTGGGATTA	1212
CAGCTTTGGG ATGACCGCTT ACAAAGTTCT GTTTGGTTAG TATTGGCATA GTTTTTCTAT	1272
ATAGCCATAA ATGCGTATAT ATACCCATAG GGCTAGATCT GTATCTTAGT GTAGCGATGT	1332

ATACATATAC	ACATCCACCT	ACATGTTGAA	GGGCCTAACC	AGCCTTGGGA	GTATTGACTG	1392
GTCCCTTACC	TCTTATGGCT	AAGTCTTTGA	CTGTGTTCAT	TTACCAAGTT	GACCCAGTTT	1452
GTCTTTTAGG	TTAAGTAAGA	ACTCGAGAGT	AAAGGCAAGG	AGGGGGGCCA	GCCTCTGAAT	1512
GCGGCCACGG	ATGCCTTGCT	GCTGCAACCC	TTTCCCCAGC	TGTCCACTGA	AACGTGAAGT	1572
CCTGTTTTGA	ATGCCAAACC	CACCATTCAC	TGGTGCTGAC	TACATAGAAT	GGGTTGAGAG	1632
AAGATCAGTT	TGGGCTTCAC	AGTGTCATTT	GAAAAAGCGT	TTTTGTTTTG	TTTTGAATTA	1692
TTGTGGAAAA	CTTTCAAGTG	AACAGAAGGA	TGGTGTCCTA	CTGTGGATGA	GGGATGAACA	1752
AGGGGATGGC	TTTGATCCAA	TGGAGCCTGG	GAGGTGTGCC	CAGAAAGCTT	GTCTGTAGCG	1812
GGTTTTGTGA	GAGTGAACAC	TTTCCACTTT	TTGACACCTT	ATCCTGATGT	ATGGTTCCAG	1872
GATTTGGATT	TTGATTTTCC	AAATGTAGCT	TGAAATTTCA	ATAAACTTTG	CTCTGTTTTT	1932
СТААААААТА	AAAA					1946

## (2) INFORMATION FOR SEQ ID NO: 6:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 134 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: protein
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

Met Asn Thr Glu Met Tyr Gln Thr Pro Met Glu Val Ala Val Tyr Gln 1 5 10 15

Leu His Asn Phe Ser Ile Ser Phe Phe Ser Ser Leu Leu Gly Gly Asp
20 25 30

Val Val Ser Val Lys Leu Asp Asn Ser Ala Ser Gly Ala Ser Val Val 35 40 45

Ala Ile Asp Asn Lys Ile Glu Gln Ala Met Asp Leu Val Lys Asn His 50 55 60

Leu Met Tyr Ala Val Arg Glu Glu Val Glu Ile Leu Lys Glu Gln Ile 65 70 75 80

Arg Glu Leu Val Glu Lys Asn Ser Gln Leu Glu Arg Glu Asn Thr Leu  $85 \hspace{1cm} 90 \hspace{1cm} 95$ 

Leu Lys Thr Leu Ala Ser Pro Glu Gln Leu Glu Lys Phe Gln Ser Cys
100 105 110

Leu Ser Pro Glu Glu Pro Ala Pro Glu Ser Pro Gln Val Pro Glu Ala 115 120 125

Pro Gly Gly Ser Ala Val 130

- (2) INFORMATION FOR SEQ ID NO: 7:
  - (i) SEQUENCE CHARACTERISTICS:(A) LENGTH: 26 amino acids

- (B) TYPE: amino acid
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: pepetide
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

Leu Lys Glu Gln Ile Lys Glu Leu Ile Glu Lys Asn Ser Gln Leu Glu
1 5 10 15

Gln Glu Asn Asp Leu Leu Lys Thr Leu Ala 20 25

- (2) INFORMATION FOR SEQ ID NO: 8:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 26 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: peptide
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

Leu Glu Asp Lys Val Glu Glu Leu Leu Ser Lys Asn Tyr His Leu Glu
1 1 15

Asn Glu Val Ala Arg Leu Lys Lys Leu Val 20 25

- (2) INFORMATION FOR SEQ ID NO: 9:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 26 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: peptide
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

Leu Glu Asn Arg Val Ala Val Leu Glu Asn Gln Asn Lys Thr Leu Ile 1 5 10 15

Glu Glu Leu Lys Ala Leu Lys Asp Leu Tyr 20 25

- (2) INFORMATION FOR SEQ ID NO: 10:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 26 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: peptide
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

Leu Glu Asn Arg Val Ala Val Leu Glu Asn Gln Asn Lys Thr Leu Ile  $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$ 

Glu Glu Leu Lys Ala Leu Lys Asp Leu Tyr 20 25

- (2) INFORMATION FOR SEQ ID NO: 11:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 26 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: peptide
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

Leu Glu Glu Lys Val Lys Thr Leu Lys Ala Gln Asn Ser Glu Leu Ala 1 5 10 15

Ser Thr Ala Asn Met Leu Arg Glu Gln Val 20 25

- (2) INFORMATION FOR SEQ ID NO: 12:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 77 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: protein
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

Met Asp Leu Val Lys Asn His Leu Met Tyr Ala Val Arg Glu Glu Val 1 5 10 15

Glu Ile Leu Lys Glu Gln Ile Arg Glu Leu Val Glu Lys Asn Ser Gln 20 25 30

Leu Glu Arg Glu Asn Thr Leu Leu Lys Thr Leu Ala Ser Pro Glu Gln 35 40 45

Leu Glu Lys Phe Gln Ser Cys Leu Ser Pro Glu Glu Pro Ala Pro Glu 50 55 60

Ser Pro Gln Val Pro Glu Ala Pro Gly Gly Ser Ala Val 65 . 70 . 75

- (2) INFORMATION FOR SEQ ID NO: 13:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 143 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: protein
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

Lys Ser Gln Trp Cys Arg Pro Val Ala Met Asp Leu Gly Val Tyr Gln
1 5 10 15

Leu Arg His Phe Ser Ile Ser Phe Leu Ser Ser Leu Leu Gly Thr Glu 20 25 30 Asn Ala Ser Val Arg Leu Asp Asn Ser Ser Ser Gly Ala Ser Val Val 35 40 45

Ala Ile Asp Asn Lys Ile Glu Gln Ala Met Asp Leu Val Lys Ser His 50 55 60

Leu Met Tyr Ala Val Arg Glu Glu Val Glu Val Leu Lys Glu Gln Ile 65 70 75 80

Lys Glu Leu Ile Glu Lys Asn Ser Gln Leu Glu Glu Glu Asn Asn Leu 85 90 95

Leu Lys Thr Leu Ala Ser Pro Glu Gln Leu Ala Gln Phe Gln Ala Gln
100 105 110

Leu Gln Thr Gly Ser Pro Pro Ala Thr Thr Gln Pro Gln Gly Thr Thr 115 120 125

Gln Pro Pro Ala Gln Pro Ala Ser Gln Gly Ser Gly Pro Thr Ala 130 135 140

## (2) INFORMATION FOR SEQ ID NO: 14:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 4 amino acids
  - (B) TYPE: amino acid
  - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
- - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

Asp Glu Val Asp

- (2) INFORMATION FOR SEQ ID NO: 15:
  - (i) SEQUENCE CHARACTERISTICS:
    - (A) LENGTH: 4 amino acids
    - (B) TYPE: amino acid
    - (D) TOPOLOGY: linear
  - (ii) MOLECULE TYPE: peptide
  - (ix) FEATURE:
- (D) OTHER INFORMATION:/note= "the N-terminus is modified by an acetyl group; the C-terminus is modified with  $CH_2OC(O)-[2,6-(CF_3)_2]Ph$ "
  - (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

Tyr Val Ala Asp

Dit